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LIST OF FISH AND WILDLIFE SERVICE PAPERS ON PHYSICAL AND CHEMICAL OCEANOGRAPHY, 1940-62

by

Lola T. Dees
Branch of Reports
Washington, D.C.

This is a list of physical and chemical oceanographic papers written by scientists of the Fish and Wildlife Service and other organizations under contract to the Service.

PAPERS APPEARING IN FISH AND WILDLIFE SERVICE PUBLICATIONS SERIES

Articles preceded by asterisks are out of print, but can be borrowed from certain public and college libraries.

Alverson, Dayton L.
* 1962. Ocean temperatures and their relationship to albacore tuna *(Thunnus germo)* distribution in waters off the coast of the States of Oregon and Washington, and the Province of British Columbia. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 20. Special Scientific Report--Fisheries No. 415.

Anderson, William W., and Jack W. Gehringer.
* 1957. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, *Theodore N. Gill* cruise 3. Special Scientific Report--Fisheries No. 210, iii + 208 p., 20 figs., 15 tables.

Anderson, William W., and Jack W. Gehringer.
* 1957. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 4. Special Scientific Report--Fisheries No. 234, iii + 192 p., 20 figs., 16 tables.

* 1958. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 5. Special Scientific Report--Fisheries No. 248, iii + 220 p., 19 figs., 15 tables.

* 1958. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 6. Special Scientific Report--Fisheries No. 265, iii + 99 p., 9 figs., 16 tables.

Revision of Fishery Leaflet 515, dated April 1961.

Anderson, William W., and Jack W. Gehringer.

* 1959. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 7. Special Scientific Report--Fisheries No. 278, iv + 277 p., 21 figs., 16 tables.

* 1959. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 8. Special Scientific Report--Fisheries No. 303, iv + 277 p., 21 figs., 16 tables.

1959. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 9. Special Scientific Report--Fisheries No. 313, iv + 226 p., 18 figs., 15 tables.

Anderson, William W., Jack W. Gehringer, and Edward Cohen.

1956. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 1. Special Scientific Report--Fisheries No. 178, iii + 160 p., 16 figs., 12 tables.

1956. Physical oceanographic, biological, and chemical data, south Atlantic coast of the United States, M/V *Theodore N. Gill* cruise 2. Special Scientific Report--Fisheries No. 198, ii + 270 p., 21 figs., 12 tables.

Anderson, William W., Joseph E. Moore, and Herbert R. Gordy.

1961. Oceanic salinities off the South Atlantic coast of the United States, *Theodore N. Gill* cruises 1-9, 1953-54. Special Scientific Report--Fisheries No. 389, v + 207 p., 6 figs., 80 tables.

1961. Water temperatures off the south Atlantic coast of the United States, *Theodore N. Gill* cruises 1-9, 1953-54. Special Scientific Report--Fisheries No. 380, v + 206 p., 6 figs., 80 tables.

Austin, Thomas S.

1954. Mid-Pacific oceanography, III, transequatorial waters, August-October 1951. Special Scientific Report--Fisheries No. 131, 52 p., 13 figs., 1 table.

Austin, Thomas S.

* 1954. Mid-Pacific oceanography, part V, transequatorial waters, May-June 1952, August 1952. Special Scientific Report--Fisheries No. 136, ii+86 p., 32 figs., 3 tables.

* 1957. Summary, oceanographic and fishery data, Marquesas Islands area, August-September, 1956 (EQUAPAC). Special Scientific Report--Fisheries No. 217, iv + 186 p., 5 figs., 20 tables.

*1960. Oceanography of the east central equatorial Pacific as observed during expedition Eastropic. Fishery Bulletin 168, vol. 60, iv + p. 257-282, 25 figs.

Austin, Thomas S., and Richard A. Barkley.

* 1962. Use of oceanographic monitoring stations in fishery research. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 20. Special Scientific Report--Fisheries No. 415.

Belser, William.

1958. Possible application of a bacterial bioassay in productivity studies. Special Scientific Report--Fisheries No. 279, part II, p. 55-58, tables 1-2.

Blackburn, Maurice.

1962. An oceanographic study of the Gulf of Tehuantepec. Special Scientific Report--Fisheries No. 404, iii + 28 p., 23 figs.

Blackburn, Maurice, and associates.

1962. Tuna oceanography in the eastern tropical Pacific. Special Scientific Report--Fisheries No. 400, iii + 48 p., 14 figs., 4 tables.

Blackburn, Maurice, Raymond C. Griffiths, Robert W. Holmes, and William H. Thomas.

1962. Physical, chemical, and biological observations in the eastern tropical Pacific Ocean: three cruises to the Gulf of Tehuantepec, 1958-59. Special Scientific Report--Fisheries No. 420, ii + 170 p., 3 figs., 6 tables.

Boyar, H. C., and F. E. Schueler.

* 1960. A photoelectric current meter. Special Scientific Report--Fisheries No. 330, ii + 7 p., 6 figs., 3 tables.

Brown, Robert P., and Kenneth Sherman.
* 1962. Oceanographic observations and skipjack distribution in the North Central Pacific. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 22. Special Scientific Report--Fisheries No. 415.

Bumpus, Dean F.
1957. Oceanographic observations, 1956, east coast of the United States. Special Scientific Report--Fisheries No. 233, iv + 132 p., 18 figs., 17 tables.

1957. Surface water temperatures along Atlantic and Gulf coasts of the United States. Special Scientific Report--Fisheries No. 214, ii + 153 p., 3 figs.

1961. Drift bottle records for the Gulf of Maine, Georges Bank and Bay of Fundy, 1956-58. Special Scientific Report--Fisheries No. 378, i + 127 p., 24 figs.

Bumpus, Dean F., and C. Godfrey Day.
1957. Drift bottle records for Gulf of Maine and Georges Bank, 1931-56. Special Scientific Report--Fisheries No. 242, ii + 61 p., 2 figs.

Bureau of Commercial Fisheries Biological Laboratory, Stanford, California.
1962. Monthly mean charts, sea surface temperature, North Pacific Ocean. Circular 134, 3 p., 36 charts.

Callaway, Richard J.
1957. Oceanographic and meteorological observations in the northeast and central north Pacific, July-December 1956. Special Scientific Report--Fisheries No. 230, iv + 49 p., 14 figs., 10 tables.

Callaway, Richard J., and James W. McGary.
* 1959. Northeastern Pacific albacore survey. Part 2. Oceanographic and meteorological observations. Special Scientific Report--Fisheries No. 315, iv + 133 p., 31 figs., 9 tables.

Collier, Albert.
* 1958. Gulf of Mexico physical and chemical data from *Alaska* cruises. Special Scientific Report--Fisheries No. 249, vi + 417 p., 22 figs., 8 tables.

Cromwell, Townsend.
* 1951. Mid-Pacific oceanography, January-March 1950. Special Scientific Report--Fisheries No. 54, iii + 9 p., 18 figs., 53 station tables.

1954. Mid-Pacific oceanography II, transequatorial waters, June-August 1950, January-March 1951. Special Scientific Report--Fisheries No. 131, i + 182 p., 32 figs., 1 table.

Day, C. Godfrey.
* 1958. Surface circulation in the Gulf of Maine as deduced from drift bottles. Fishery Bulletin 141, vol. 58, iv + p. 443-472, 20 figs., 1 table.

* 1959. Oceanographic observations, 1957, east coast of the United States. Special Scientific Report--Fisheries No. 282, viii + 123 p., 18 figs., 17 tables.

* 1959. Oceanographic observations, 1958, east coast of the United States. Special Scientific Report--Fisheries No. 318, vii + 119 p., 18 figs., 18 tables.

1960. Oceanographic observations, 1959, east coast of the United States. Special Scientific Report--Fisheries No. 359, iv + 114 p., 18 figs., 18 tables.

Dragovich, Alexander.
1961. Relative abundance of plankton off Naples, Florida, and associated hydrographic data, 1956-57. Special Scientific Report--Fisheries No. 372, ii + 41 p., 1 fig., 18 tables.

Dragovich, Alexander, John H. Finucane, and Billie Z. May.
1961. Counts of red tide organisms, *Gymnodinium breve*, and associated oceanographic data from Florida west coast, 1957-59. Special Scientific Report--Fisheries No. 369, ii + 175 p., 7 figs., 85 station tables.

Dragovich, Alexander, and Billie Z. May.
1962. Hydrological characteristics of Tampa Bay tributaries. Fishery Bulletin 205, vol. 62, iv + p. 163-176, 8 figs., 2 tables.

Drummond, Kenneth H., and George B. Austin, Jr.
* 1958. Some aspects of the physical oceanography of the Gulf of Mexico. Special Scientific Report--Fisheries No. 249, p. 5-7, 1 fig.

Eber, Laurence E., and Oscar E. Sette.
* 1959. Indices of mean monthly geostrophic wind over the North Pacific Ocean. Special Scientific Report--Fisheries No. 323, iv + 108 p., 11 figs., 9 tables.

Edwards, Robert L., Robert Livingstone, Jr., and Paul E. Hamer.
1961. Winter water temperatures and an [1962] annotated list of fishes--Nantucket Shoals to Cape Hatteras, *Albatross III* cruise no. 126. Special Scientific Report--Fisheries No. 397, iii + 31 p., 11 figs., 10 tables.

Favorite, Felix, Richard J. Callaway, and James F. Hebard.
1961. North Pacific and Bering Sea oceanography, 1959. Special Scientific Report--Fisheries No. 377, iii + 212 p., 1 fig.

Favorite, Felix, and Glenn M. Pedersen.
1959. Bristol Bay oceanography, August-September 1938. Special Scientific Report--Fisheries No. 311, iv + 31 p., 9 figs., 37 tables.

1959. North Pacific and Bering Sea oceanography, 1957. Special Scientific Report--Fisheries No. 292, v + 106 p., 2 figs., 3 tables.

1959. North Pacific and Bering Sea oceanography, 1958. Special Scientific Report--Fisheries No. 312, iv + 230 p., 1 fig.

Favorite, Felix, John W. Schantz, and Charles R. Hebard.
* 1961. Oceanographic observations in Bristol Bay and the Bering Sea, 1939-41 *(USCGT Redwing)*. Special Scientific Report--Fisheries No. 381, ii + 323 p., 6 figs.

Finucane, John H., and Alexander Dragovich.
* 1959. Counts of red tide organisms, *Gymnodinium breve,* and associated oceanographic data from Florida west coast, 1954-57. Special Scientific Report--Fisheries No. 289, iv + 220 p., 5 figs.

Galtsoff, Paul S. (coordinator).
* 1954. Gulf of Mexico - its origin, waters, and marine life. Prepared by American scientists under sponsorship of the Fish and Wildlife Service. Fishery Bulletin 89, vol. 55, xiii + 604 p., 74 figs., 34 tables.

Graham, Herbert W., John M. Amison, and Kenneth T. Marvin.
* 1954. Phosphorus content of waters along the west coast of Florida. Special Scientific Report--Fisheries No. 122, iv + 43 p., 7 figs., 6 tables.

Graham, Joseph J., and William L. Craig.
1961. Oceanographic observations made during a cooperative survey of albacore *(Thunnus germo)* off the North American west coast in 1959. Special Scientific Report--Fisheries No. 386, iv + 31 p., 4 figs., 7 tables.

Hebard, James F.
* 1959. Currents in southeastern Bering Sea and possible effects upon king crab larvae. Special Scientific Report--Fisheries No. 293, v + 11 p., 11 figs., 2 tables.

Holmes, Robert W.
1958. Part 1. Methods and station data. Physical, chemical, and biological oceanographic observations obtained on expedition SCOPE in the eastern tropical Pacific, November-December 1956. Special Scientific Report--Fisheries No. 279, v + p. 1-51, 2 figs.

Holmes, Robert W., and Maurice Blackburn.
1960. Physical, chemical, and biological observations in the eastern tropical Pacific Ocean SCOT expedition, April-June 1958. Special Scientific Report--Fisheries No. 345, iii + 106 p., 4 figs., 152 tables.

Johnson, James H.
1961. Sea surface temperature monthly average and anomaly charts, northeastern Pacific Ocean, 1947-58. Special Scientific Report--Fisheries No. 385, ii + 56 p.

* 1962. Sea temperatures and the availability of albacore *(Thunnus germo)* off the coasts of Oregon and Washington. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 26. Special Scientific Report--Fisheries No. 415.

Jones, Galen E., and William H. Thomas.
1958. The effects of organic and inorganic micronutrients on the assimilation of C^{14} by planktonic communities and on bacterial multiplication in tropical Pacific sea water. Special Scientific Report--Fisheries No. 279, part II, p. 87-99, tables 13-18.

Jones, G. E., W. H. Thomas, and F. T. Haxo.
1958. Preliminary studies of bacterial growth in relation to dark and light fixation of $C^{14}O_2$ during productivity determinations. Special Scientific Report--Fisheries No. 279, part II, p. 79-86, tables 8-12.

King, Joseph E., Thomas S. Austin, and Maxwell S. Doty.
* 1957. Preliminary report on expedition EASTROPIC. Special Scientific Report--Fisheries No. 201, iv + 155 p., 24 figs., 12 tables.

Leipper, Dale F.
* 1954. Marine meteorology of the Gulf of Mexico, a brief review. Fishery Bulletin 89, vol. 55, p. 89-98, figs. 17-22, 1 table.

* 1954. Physical oceanography of the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 119-137, figs. 34-43, 4 tables.

Lynch, S. A.
* 1954. Geology of the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 67-89, fig. 16.

Marak, Robert R., and John B. Colton, Jr.
1961. Distribution of fish eggs and larvae, temperature, and salinity in the Georges Bank-Gulf of Maine area, 1953. Special Scientific Report--Fisheries No. 398, iii + 61 p., 15 figs., 13 tables.

Marak, Robert R., John B. Colton, Jr., and Donald B. Foster.
1962. Distribution of fish eggs and larvae, temperature, and salinity in the Georges Bank-Gulf of Maine area, 1955. Special Scientific Report--Fisheries No. 411, iii + 66 p., 16 figs., 17 tables.

Marak, Robert R., John B. Colton, Jr., Donald B. Foster, and David Miller.
1962. Distribution of fish eggs and larvae, temperature, and salinity in the Georges Bank-Gulf of Maine area, 1956. Special Scientific Report--Fisheries No. 412, iii + 95 p.

Marmer, H. A.
* 1954. Tides and sea level in the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 101-118, figs. 23-33, 3 tables.

Marr, John C. (editor).
* 1962. Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii. Special Scientific Report--Fisheries No. 415, v + 45 p.

Marvin, Kenneth T.
1955. Oceanographic observations in west coast Florida waters, 1949-52. Special Scientific Report--Fisheries No. 149, i + 32 p., 2 figs., 27 tables.

Marvin, Kenneth T., Larence M. Lansford, and Ray S. Wheeler.
1961. Effects of copper ore on the ecology of a lagoon. Fishery Bulletin 184, vol. 61, iv + p. 153-160, 9 figs.

Marvin, Kenneth T., Zoula P. Zein-Eldin, Billie Z. May, and Larence M. Lansford.
1960. Chemical analyses of marine and estuarine waters used by the Galveston Biological Laboratory. Special Scientific Report--Fisheries No. 349, ii + 14 p., 1 table.

McGary, James W.
1955. Mid-Pacific oceanography, part VI, Hawaiian offshore waters, December 1949-November 1951. Special Scientific Report--Fisheries No. 152, ii + 138 p., 34 figs.

McGary, James W., and Joseph J. Graham.
* 1960. Biological and oceanographic observations in the central North Pacific, July-September 1958. Special Scientific Report--Fisheries No. 358, v + 107 p., 14 figs., 17 tables.

McGary, J. W., E. C. Jones, and T. S. Austin.
* 1956. Mid-Pacific oceanography, part IX, operation NORPAC. Special Scientific Report--Fisheries No. 168, iii + 127 p., 12 figs., 10 tables.

McGary, James W., and Thomas M. Naito.
1957. Wind atlas of the North Pacific. Special Scientific Report--Fisheries No. 243, iii + 35 p., 1 fig., 53 charts, 2 tables.

McGary, James W., and E. D. Stroup.
* 1956. Mid-Pacific oceanography, Part VIII, middle latitude waters, January-March 1954. Special Scientific Report--Fisheries No. 180, v + 173 p., 94 figs., 1 table.

1958. Oceanographic observations in the central North Pacific, September 1954-August 1955. Special Scientific Report--Fisheries No. 252, vi + 250 p., 145 figs., 6 tables.

Moore, Joseph E., and Donn S. Gorsline.
* 1960. Physical and chemical data for bottom sediments, South Atlantic coast of the United States, M/V *Theodore N. Gill* cruises 1-9. Special Scientific Report--Fisheries No. 366, iii + 84 p., 8 figs., 1 table.

Price, W. Armstrong.
* 1954. Shorelines and coasts of the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 39-65, figs. 12-15, 1 table.

Rounsefell, George A., and John E. Evans.
* 1958. Large-scale experimental test of copper sulfate as a control for the Florida red tide. Special Scientific Report--Fisheries No. 270, vi + 57 p., 20 figs., 5 tables.

Seckel, Gunter R.
1955. Mid-Pacific oceanography, part VII, Hawaiian offshore waters, September 1952-August 1953. Special Scientific Report--Fisheries No. 164, vi + 250 p., 39 figs., 5 tables.

* 1962. Atlas of the oceanographic climate of the Hawaiian Islands region. Fishery Bulletin 193, vol. 61, iv + p. 371-427, 28 figs., 6 charts.

Seckel, Gunter R., and Thomas S. Austin.
* 1962. The association between Hawaiian skipjack landings and the oceanographic climate. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 35-36. Special Scientific Report--Fisheries No. 415.

Sette, Oscar E., and POFI staff.
* 1954. Progress in Pacific Oceanic Fishery Investigations, 1950-53. Special Scientific Report--Fisheries No. 116, i + 75 p., 30 figs., 7 tables.

Sherman, Kenneth, and Robert P. Brown.
1961. Oceanographic and biological data, Hawaiian waters, January-October 1959. Special Scientific Report--Fisheries No. 396, iv + 71 p., 1 fig., 27 tables.

1962. Oceanographic and biological data, Hawaiian waters, January-July 1961. Special Scientific Report--Fisheries No. 436, iv + 41 p., 3 figs., 15 tables.

Shigley, C. M.
* 1954. The recovery of minerals from sea water. Fishery Bulletin 89, vol. 55, p. 153-159.

Shoemaker, William S.
* 1954. Light penetration in the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 139-141, 2 tables.

Smith, Osgood R., and Elbert H. Ahlstrom.
* 1948. Echo-ranging for fish schools and observations on temperature and plankton in waters off central California in the spring of 1946. Special Scientific Report No. 44, i + 30 p., 13 figs., 9 tables.

Stephens, F. H., Jr., and F. J. Shea.
1956. Underwater telemeter for depth and temperature. Special Scientific Report--Fisheries No. 181, ii + 22 p., 10 figs., 2 tables.

Strasburg, Donald W.
* 1962. An aerating device for salt well water. [Abstract.] *In* John C. Marr (editor), Pacific tuna biology conference, August 14-19, 1961, Honolulu, Hawaii, p. 37. Special Scientific Report--Fisheries No. 415.

Stroup, E.D.
* 1954. Mid-Pacific oceanography, part IV, transequatorial waters, January-March 1952. Special Scientific Report--Fisheries No. 135, ii + 52 p., 19 figs.

Taylor, Clyde C., Henry B. Bigelow, and Herbert W. Graham.
* 1957. Climatic trends and the distribution of marine animals in New England. Fishery Bulletin 115, vol. 57, iii + p. 293-345, 29 figs., 30 tables.

Thomas, William H.
1958. The alcohol-soluble and insoluble fractions of the photosynthetically fixed carbon in naturally occurring marine phytoplankton populations. Special Scientific Report--Fisheries No. 279, part II, p. 113-117, tables 19-20.

United States Public Health Service, Division of Water Pollution Control and Division of Sanitation.
* 1954. Aspects of water pollution in the coastal area of the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 555-575, figs. 73-74, 4 tables.

Van Campen, Wilvan G. (translator).
* 1952. Oceanographic conditions and the albacore fishery east of Cape Nojima. Translated from the Japanese language. Special Scientific Report--Fisheries No. 77, iii + 18 p., 3 figs., 7 tables.

* 1952. Oceanographic conditions and the black tuna fishery. By Takeshi Kawana. Translated from the Japanese language. Special Scientific Report--Fisheries No. 78, ii + 33 p., 6 figs., 9 tables.

Webster, John R., and Raymond J. Buller.
* 1950. Drift bottle releases off New Jersey. A preliminary report on experiments begun in 1948. Special Scientific Report--Fisheries No. 10, iii + 21 p., 4 figs., 2 tables.

Williams, Robert H.
* 1953. Distribution of chemical constituents of sea water in the Gulf of Mexico. Fishery Bulletin 89, vol. 55, p. 143-151, 6 tables.

Wilson, Robert C., Eugene L. Nakamura, and Howard O. Yoshida.
* 1958. Marquesas area fishery and environmental data, October 1957-June 1958. Special Scientific Report--Fisheries No. 283, v + 105 p., 3 figs., 47 tables.

Wilson, Robert C., and Murice O. Rinkel.
* 1957. Marquesas area oceanographic and fishery data, January-March 1957. Special Scientific Report--Fisheries No. 238, iv + 136 p., 4 figs., 32 tables.

Wise, John P.
* 1958. Cod and hydrography--a review. Special Scientific Report--Fisheries No. 245, iv + 16 p., 1 fig., 2 tables.

Yoshida, Howard O.
1960. Marquesas area fishery and environmental data, January-March 1959. Special Scientific Report--Fisheries No. 348, v + 37 p., 4 figs., 19 tables.

PAPERS PUBLISHED BY FISH AND WILDLIFE SERVICE AUTHORS IN NON-FWS PUBLICATIONS

The Fish and Wildlife Service does not have copies of the papers listed below for distribution. They are available only in the sources in which they are published.

Ahlstrom, Elbert H.
1958. Research being done by the California Cooperative Oceanic Fisheries Investigations on oceanographic activities in the Pacific. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 47-48.

Alverson, Dayton L.
1961. Ocean temperatures and their relation to albacore tuna *(Thunnus germo)* distribution in waters off the coast of Oregon, Washington and British Columbia. Journal of the Fisheries Research Board of Canada, vol. 18, no. 6, p. 1145-1152.

Austin, Thomas S.
1955. Oceanographic research in the Pacific. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirtieth Annual Meeting, 1954-1955, p. 14.

1958. Seasonal variations in the oceanographic and the marine biological features in the waters of French Oceania (Marquesas). [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-third Annual Meeting, 1957-1958, p. 20-21.

Austin, Thomas S.
1958. Variations with depth of oceanographic properties along the Equator in the Pacific. Transactions of the American Geophysical Union, vol. 39, no. 6, p. 1055-1063.

1959. Secular warming in sea surface temperatures, equatorial Pacific, 1955-1958. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-fourth Annual Meeting, 1958-1959, p. 21.

1960. Summary, 1955-57, ocean temperatures, central equatorial Pacific. *In* Part II, Symposium on "The changing Pacific Ocean in 1957 and 1958." California Cooperative Oceanic Fishery Investigations, Reports, vol. 7, p. 52-55.

Austin, Thomas S., and Vernon E. Brock.
1959. Meridional variations in some oceanographic and marine biological factors in the central Pacific. *In* Preprints of the International Oceanographic Congress (1959), p. 130-132. American Association for the Advancement of Science, Washington, D.C. [Summary in English; abstract in Russian.]

Austin, Thomas S., and Murice O. Rinkel.
1957. Variations in upwelling in the equatorial Pacific. Ninth Pacific Science Congress Abstract of Papers, p. 168.

1958. Variations in upwelling in the equatorial Pacific. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 67-71.

Austin, T. S., E. D. Stroup, and M. O. Rinkel.
1956. Variations in the equatorial countercurrent in the central Pacific. Transactions of the American Geophysical Union, vol. 37, no. 5, p. 558-564.

Barkley, Richard A., and Thomas S. Austin.
1961. Distribution of properties about the equatorial undercurrent. Abstracts of Symposium Papers, Tenth Pacific Science Congress, Symposium on Equatorial Circulation in the Pacific, p. 339-340.

Bright, Donald B.
1960. Physical features of Kachemak Bay, Alaska, affecting the life history of the king crab, *Paralithodes camtschatica* Tilesius. Proceedings of the Tenth Alaskan Science Conference, August 25 to 28, 1959, p. 68.

Brock, Vernon E.
1962. Operational aspects of oceanographic instrumentation. Part III. For the Bureau of Commercial Fisheries (Biological). *In* Julius Rockwell, Jr. (editor), Proceedings of the Government-Industry Oceanographic Instrumentation Symposium, August 16-17, 1961, Washington, D.C., p. 88-91. Miller-Columbian Reporting Service, Washington, D.C.

Bumpus, Dean F.
1960. Sources of water contributed to the Bay of Fundy by surface circulation. Journal of the Fisheries Research Board of Canada, vol. 17, no. 2, p. 181-197.

Callaway, Richard J.
1958. Annual variations of sea surface temperature in the eastern North Pacific Ocean. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-third Annual Meeting, 1957-58, p. 26-27.

Chipman, Walter A.
1960. Biological aspects of disposal of radioactive wastes in marine environments. Disposal of Radioactive Wastes, p. 3-15. International Atomic Energy Agency, Vienna, Austria.

Collier, Albert.
1958. Some biochemical aspects of red tides and related oceanographic problems. Limnology and Oceanography, vol. 3, no. 1, p. 33-39.

Colton, John B., Jr.
1959. A field observation of mortality of marine fish larvae due to warming. Limnology and Oceanography, vol. 4, no. 2, p. 219-222.

Colton, John B., Jr., and Robert R. Marak.
1962. Use of the Hardy Continuous Plankton Recorder in a fishery research programme. Bulletin of Marine Ecology, vol. 5, no. 49, p. 231-246.

Creaser, Edwin P.
1942. Fish mortality resulting from effects of a tropical hurricane. Copeia, 1942, no. 1, p. 48-49.

Cromwell, Townsend.
1953. Circulation in a meridional plane in the central equatorial Pacific. Journal of Marine Research, vol. 12, no. 2, p. 196-213.

Cromwell, Townsend, R. B. Montgomery, and E. D. Stroup.
1954. Equatorial undercurrent in Pacific Ocean revealed by new methods. Science, vol. 119, no. 3097, p. 648-649.

Davidson, F. A., and S. J. Hutchinson.
1943. Weather as an index to abundance of pink salmon. Pacific Fisherman, vol. 41, no. 6, p. 21, 23, 25, 27, 29.

Davis, Harry C.
1960. Effects of turbidity-producing materials in sea water on eggs and larvae of the clam *(Venus (mercenaria) mercenaria)*. Biological Bulletin, vol. 118, no. 1, p. 48-54.

Eber, L. E.
1961. Effects of wind induced advection on sea surface temperature. Journal of Geophysical Research, vol. 66, no. 3, p. 839-844.

Eckles, Howard H.
1960. How research in oceanography can help the fishing industry. Fish Boat, vol. 5, no. 6, p. 38-41.

1960. Report of the Committee on Oceanography: 'What does it mean to commercial fisheries?' Proceedings of the Gulf and Caribbean Fisheries Institute, Twelfth Annual Session, November 1959, p. 47-50.

Edwards, Robert L., and J. L. Chamberlin.
1961. Grant No. 1547 (1953), $1,500. Ecological investigation of Richmond Gulf, Hudson Bay. Year Book of the American Philosophical Society, p. 285-287.

Favorite, Felix.
1961. Pacific subarctic circulation. [Abstract.] Abstracts of Symposium Papers, Tenth Pacific Science Congress, Honolulu, Hawaii, p. 343-344.

Favorite, Felix.
1961. Surface temperature and salinity off the Washington and British Columbia coasts, August 1958 and 1959. Journal of the Fisheries Research Board of Canada, vol. 18, no. 3, p. 311-319.

Galtsoff, Paul S.
1951. A survey of the present knowledge of the Gulf of Mexico: A progress report. [Abstract.] Proceedings of the Gulf and Caribbean Fisheries Institute, Third Annual Session, November 1950, p. 127.

1952. Early explorations in the Gulf of Mexico. Proceedings of the Gulf and Carribbean Fisheries Institute, Fourth Annual Session, November 1951, p. 129-134.

Gehringer, Jack W.
1962. The Gulf III and other modern high-speed plankton samplers. Conseil Permanent International pour l'Exploration de la Mer, Rapports et Procès-Verbaux des Réunions, vol. 153, p. 19-22.

Godfrey, Mary Lynne.
1958. Review of POFI's oceanographic program, January 1952-June 1957. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 18-20.

Graham, Herbert W.
1952. A contribution to the oceanography of the Sulu Sea. Proceedings of the Seventh Pacific Science Congress, vol. 3, p. 225-266.

1953. The topography of the sea surface in the region of the Philippines. [Abstract.] Eighth Pacific Science Congress Abstracts of Papers, p. 89.

Hebard, James F.
1961. Currents in southeastern Bering Sea. International North Pacific Fisheries Commission, Document No. 281, Bulletin 5, p. 9-16.

Hester, Frank J.
1961. A method of predicting tuna catch by using coastal sea-surface temperatures. California Fish and Game, vol. 47, no. 4, p. 313-326.

Holmes, Robert W., and James M. Snodgrass.
1961. A multiple-detector irradiance meter and electronic depth-sensing unit for use in biological oceanography. Journal of Marine Research, vol. 19, no. 1, p. 40-56.

Isaacs, John D., and Oscar E. Sette.
1959. Unusual conditions in the Pacific. Science, vol. 129, no. 3351, p. 787-788.

Johnson, James H.
1962. Sea temperatures and the availability of albacore off the coasts of Oregon and Washington. Transactions of the American Fisheries Society, vol. 91, no. 3, p. 269-274.

Jones, Everet C.
1962. Evidence of an island effect upon the standing crop of zooplankton near the Marquesas Islands, Central Pacific. Conseil Permanent International pour l'Exploration de la Mer, Journal du Conseil, vol. 27, no. 3, p. 223-231.

1956. Plankton: Living drift bottles for the study of water movements in the North Pacific. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-first Annual Meeting, 1955-1956, p. 10.

June, Fred C., and J. Lockwood Chamberlin.
1959. The role of the estuary in the life history and biology of Atlantic menhaden. Proceedings of the Gulf and Caribbean Fisheries Institute, Eleventh Annual Session, November 1958, p. 41-45.

King, Joseph E.
1958. Variation in abundance of zooplankton and forage organisms in the central Pacific in respect to the equatorial upwelling. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 98-107.

Knauss, John A., and Joseph E. King.
1958. Observations on the Pacific equatorial undercurrent. Nature, vol. 182, no. 4635, p. 601-602.

Koczy, F. F., M. O. Rinkel, and S. J. Niskin.
1960. The current patterns on the Tortugas shrimp grounds. Proceedings of the Gulf and Caribbean Fisheries Institute, Twelfth Annual Session, November 1959, p. 112-125.

Marr, John C.
1960. The causes of major variations in the catch of the Pacific sardine, *Sardinops caerulea* (Girard). Proceedings of the World Scientific Meeting on the Biology of Sardines and Related Species, vol. 3, p. 667-791. Food and Agriculture Organization of the United Nations, Rome, Italy.

May, Billie Z.
1960. Stabilization of the carbohydrate content of sea water samples. Limnology and Oceanography, vol. 5, no. 3, p. 342-343.

McGary, James W.
1960. IGY oceanographic program and the development concerning the Pacific equatorial undercurrent. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-fifth Annual Meeting, 1959-60, p. 22-23.

1960. Surface temperature anomalies in the central north Pacific, January 1957-1958. *In* Part II, Symposium on "The changing Pacific Ocean in 1957 and 1958." California Cooperative Oceanic Fishery Investigations, vol. 7, p. 47-51.

McGary, James W., Joseph J. Graham, and Tamio Otsu.
1961. Oceanography and North Pacific albacore. California Cooperative Oceanic Fisheries Investigations, Reports, vol. 8, p. 45-53.

McGary, James W., Everet C. Jones, and Joseph J. Graham.
1958. Enrichment in the transition zone between the subarctic and central water masses of the central North Pacific. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 82-89.

McHugh, J. L.
1961. Power from the tides. Sea Frontiers, vol. 7, no. 1, p. 30-40. International Oceanographic Foundation, Miami, Fla.

Merna, James W.
1962. Quantitative sampling with the orange-peel dredge. Limnology and Oceanography, vol. 7, no. 3, p. 432-433.

Montgomery, R. B.
1954. Analysis of a *Hugh M. Smith* oceanographic section from Honolulu southward across the Equator. Journal of Marine Research, vol. 13, no. 1, p. 67-75.

Murphy, Garth I.
1959. Effect of water clarity on albacore catches. Limnology and Oceanography, vol. 4, no. 1, p. 86-93.

Murphy, Garth I., Kenneth D. Waldron, and Gunter R. Seckel.
1960. The oceanographic situation in the vicinity of the Hawaiian Islands during 1957 with comparisons with other years. *In* Part II, Symposium on "The changing Pacific Ocean 1957 and 1958." California Cooperative Oceanic Fishery Investigations, Reports, vol. 7, p. 56-59.

Posgay, Julius A.
1958. Photography of the sea floor. Oceanus, vol. 6, no. 1, p. 16-19.

Proctor, Raphael R., Jr.
1962. Stabilization of the nitrite content of sea water by freezing. Limnology and Oceanography, vol. 7, no. 4, p. 479-480.

Pyle, Robert L.
1962. The marine environment. Sea surface temperature regime in the western North Atlantic, 1953-1954, Folio 1. American Geographical Society, 33 p., August 1962.

Rockwell, Julius, Jr. (editor).
1962. Proceedings of the Government-Industry Oceanographic Instrumentation Symposium, August 16-17, 1961, Washington, D.C. Miller-Columbian Reporting Service, Washington, D.C., 482 p.

Roden, Gunnar I.
1960. On the nonseasonal variations in sea level along the west coast of North America. Journal of Geophysical Research, vol. 65, no. 9, p. 2809-2826.

1961. On the wind-driven circulation in the Gulf of Tehuantepec and its effects upon surface temperatures. Geofisica Internacional, Mexico, vol. 1, no. 3, p. 55-76. [English and Spanish.]

Royce, William F.
1949. The research program of the *Albatross III*. Transactions of the Fourteenth North American Wildlife Conference, p. 466-476.

1958. Tuna Commission activities in Pacific oceanography. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 42-43.

Saur, J. F. T.
1961. On the differences between sea water temperatures from ship's weather observations and sea surface temperatures. [Abstract.] Journal of Geophysical Research, vol. 66, no. 5, p. 1558-1559.

1962. The variability of monthly mean sea level at six stations in the northeast Pacific ocean. Journal of Geophysical Research, vol. 67, no. 7, p. 2781-2790.

Saur, J. F. T., and L. E. Eber.
1959. On the preparation and significance of monthly mean sea-surface temperature charts of the North Pacific Ocean. [Abstract.] Journal of Geophysical Research, vol. 64, no. 6, p. 694.

Saur, J. F. T., L. E. Eber, and O. E. Sette.
1959. Empirical approaches to problems of interaction between atmospheric and oceanic conditions in the North Pacific Ocean. *In* Preprints of the International Oceanographic Congress (1959), p. 724-725. American Association for the Advancement of Science, Washington, D.C. [Summary in English; abstract in German.]

Scattergood, Leslie W., and John E. Watson.
1960. How tidal power project would affect fish. National Fisherman, vol. 41, no. 5, p. 7, 27.

Seckel, Gunter R.
1960. Advection--a climatic character in the Mid-Pacific. *In* Part II, Symposium on "The changing Pacific Ocean in 1957 and 1958." California Cooperative Oceanic Fishery Investigations, Reports, vol. 7, p. 60-65.

Seckel, Gunter H., and Kenneth D. Waldron.
1960. Oceanography and the Hawaiian skipjack fishery. Pacific Fisherman, vol. 58, no. 3, p. 11-13.

Sette, Oscar E.
1949. Pacific Oceanic Fishery Investigations. Copeia, 1949, no. 1, p. 84-85.

1953. Nourishment of central Pacific stocks of tuna by the equatorial circulation system. [Abstract.] Eighth Pacific Science Congress Abstracts of Papers, p. 63.

1955. Consideration of midocean fish production as related to oceanic circulatory systems. Journal of Marine Research, vol. 14, no. 4, p. 398-414.

Sette, Oscar E.
1956. Nourishment of central Pacific stocks of tuna by the equatorial circulation system. Proceedings of the Eighth Pacific Science Congress, vol. 3, p. 131-148 (Oceanography).

1960. The long term historical record of meteorological, oceanographic and biological data. *In* Part II, Symposium on "The changing Pacific Ocean in 1957 and 1958." California Cooperative Oceanic Fishery Investigations, Reports, vol. 7, p. 181-194.

1962. What oceanography means to fishermen. Proceedings of the Gulf and Caribbean Fisheries Institute Annual Session, 1961, p. 67-74.

Sette, Oscar E., and Milner B. Schaefer.
1951. Pacific Oceanic Fishery Investigations, statement of program. Indo-Pacific Fisheries Council Proceedings, 2d meeting, April 17-28, 1950, Cronulla, N.S.W., Australia, secs. 2 and 3, p. 85-87.

Sherman, Kenneth.
1961. A high school oceanographic laboratory. American Biology Teacher, vol. 23, no. 1, p. 29-35.

Skud, Bernard E., and William B. Wilson.
1960. Role of estuarine waters in Gulf fisheries. Transactions of the Twenty-fifth North American Wildlife and Natural Resources Conference, p. 320-326.

Smith, Stanford H.
1962. Temperature correction in conductivity measurements. Limnology and Oceanography, vol. 7, no. 2, p. 330-334.

Squire, James L., Jr.
1962. Thermal relationships of tuna in the oceanic Northwest Atlantic. World Scientific Meeting on the Biology of Tunas and Related Species, La Jolla, California, July 2-14, 1962. Food and Agriculture Organization of the United Nations, Rome, Italy, Experience Paper No. 38, 20 p.

Stroup, Edward Dixon.
1956. Oceanography of the central temperate North Pacific. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-first Annual Meeting, 1955-1956, p. 9-10.

Stroup, Edward Dixon, and Thomas S. Austin.
1955. Review of the oceanographic programs of the Pacific Oceanic Fishery Investigations. [Abstract.] Transactions of the American Geophysical Union, vol. 36, no. 3, p. 530-531.

1955. Review of the oceanographic programs of the Pacific Oceanic Fishery Investigations. Transactions of the American Geophysical Union, vol. 36, no. 5, p. 881-884.

Taylor, Clyde C.
1958. Cod growth and temperature. Journal du Conseil Permanent International pour l'Exploration de la Mer, vol. 23, no. 3, p. 366-370.

1959. Temperature and growth--the Pacific razor clam. Journal du Conseil Permanent International pour l'Exploration de la Mer, vol. 25, no. 1, p. 93-101.

1959. The axiom of stable environment in fishery science. *In* Preprints of the International Oceanographic Congress (1959), p. 352-355. American Association for the Advancement of Science, Washington, D.C. [Summary in English; abstract in Russian.]

1960. Temperature, growth, and mortality - the Pacific cockle. Journal du Conseil Permanent International pour l'Exploration de la Mer, vol. 26, no. 1, p. 117-124.

1960. Water temperature and cod growth-rate. Letters to the editor. Journal du Conseil Permanent International pour l'Exploration de la Mer, vol. 25, no. 2, p. 223-224.

Tester, Albert L.
1958. Symposium: Equapac. Introduction. Proceedings of the Ninth Pacific Science Congress, vol. 16, p. 221.

Thompson, Seton H.
1961. What is happening to our estuaries? Transactions of the Twenty-sixth North American Wildlife and Natural Resources Conference, p. 318-322.

Van Landingham, John W.
1958. Stabilizing heteropoly color in the estimation of phosphate-phosphorus in sea water. [Abstract.] Proceedings of the Hawaiian Academy of Science, Thirty-third Annual Meeting, 1957-1958, p. 22.

Walford, Lionel A.
1946. Correlation between fluctuations in abundance of the Pacific sardine *(Sardinops caerulea)* and salinity of the sea water. Journal of Marine Research, vol. 6, no. 1, p. 48-53.

1952. Recent fishery hydrographic results in the United States. [Abstract.] Conseil Permanent International pour l'Exploration de la Mer, Rapports et Procès-Verbaux des Réunions, vol. 131, p. 111.

1954. Effect of climatic changes on fish stocks. Atlantic Fisherman, vol. 35, no. 2, p. 20, 40-41.

Whiteleather, Richard T., and James B. Higman.
1958. Weather and Caribbean fisheries development. Proceedings of the Gulf and Caribbean Fisheries Institute, Tenth Annual Session, November 1957, p. 143-147.

Wigley, Roland L.
1959. Organic content of Georges Bank bottom sediments. *In* Preprints of the International Oceanographic Congress (1959), p. 587-589. American Association for the Advancement of Science, Washington, D.C. [Summary in English; abstract in Russian.]

Wigley, Roland L.
1961. Bottom sediments of Georges Bank. Journal of Sedimentary Petrology, vol. 31, no. 2, p. 165-188.

Wilson, Robert C.
1962. Fishery oceanography in the tropical Atlantic. Transactions of the Twenty-seventh North American Wildlife and Natural Resources Conference, March 12-14, 1962, p. 351-361.

Wise, John P.
1960. Cod, haddock and temperature. [Abstract.] Proceedings of the Northeast Wildlife Conference, Providence, Rhode Island, January 1960, 1 p.

Wooster, W. S.
1960. El Niño. California Cooperative Oceanic Fisheries Investigations, Reports, vol. 7, p. 43-45.

Wooster, W. S.
1961. Further evidence of a Pacific south equatorial countercurrent. Deep-Sea Research, vol. 8, nos. 3 and 4, p. 294-297.

1961. Yearly changes in the Peru Current. Limnology and Oceanography, vol. 6, no. 2, p. 222-226.

Wooster, Warren S., and Malvern Gilmartin.
1961. The Peru-Chile undercurrent. Journal of Marine Research, vol. 19, no. 3, p. 97-122.

Zein-Eldin, Zoula P., and Billie Z. May.
1958. Improved N-ethylcarbazole determination of carbohydrates with emphasis on sea water samples. Analytical Chemistry, vol. 30, no. 12, p. 1935-1941.

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